

Microsoft Access – Relationships Among The Tables

Understanding MS Access and Relationships Among the Tables

TABLE – A database consists of a collection of tables. Each table is a container for data about a particular subject, such as PATIENT, CONDITION, etc. The name of the table usually helps identify the subject. Each record (row) in a table contains information about an **individual** subject (patient, etc.). The records in a table are made up of columns (fields) such as name, date of birth, etc. All the tables together complete the “whole picture”. Therefore, the tables must be related so that you can use data from multiple tables together. Lines between the tables indicate the related fields.

PRIMARY KEY – Each table contains a unique identifier that is assigned to the record. No two records can have the same number.

FOREIGN KEY – Tables may contain a column which includes the primary key from another table. This allows the tables to be related/joined. In WebSurv, all condition related tables (ex. Symptoms, tests, etc) contain the SURVWEB_CONDITION_ID and all party related tables (person, party_identifiers, etc) contain the SURVWEB_PARTY_ID.

RELATIONSHIPS AMONG THE TABLES

One- to-One – Each row in the first table has only one row in the second table.

One-to-Many – Each row in the first table may be associated with multiple rows in the second table but each row in the second table is associated with only one row in the first table.

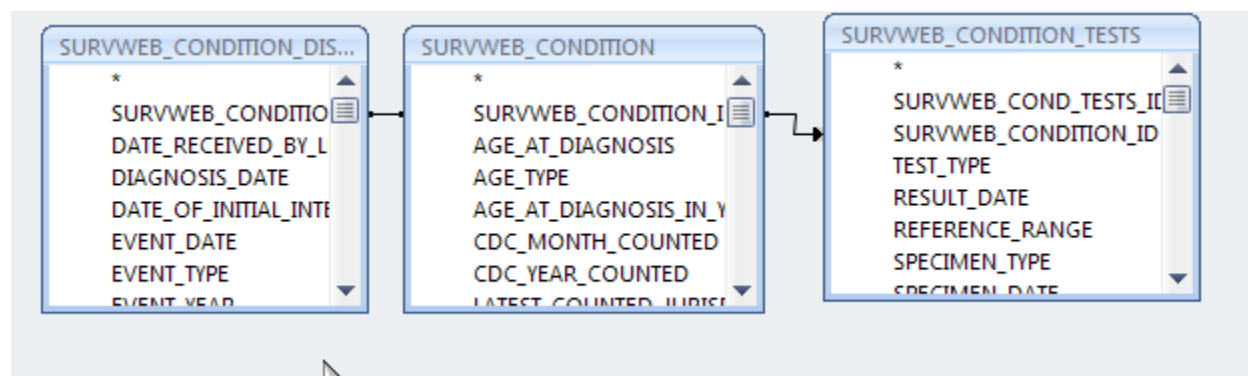
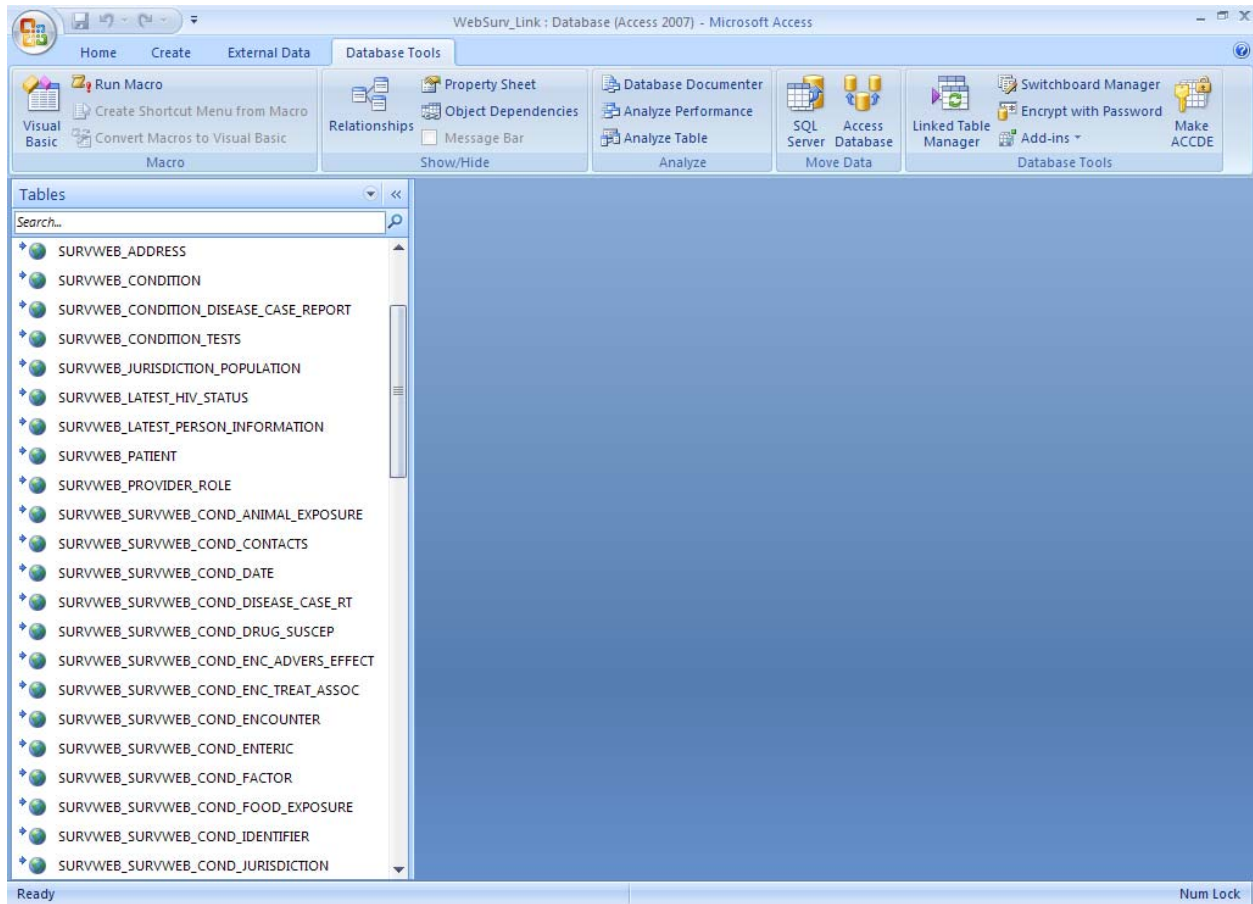


Figure 1. Example of related tables shown in Microsoft Access.

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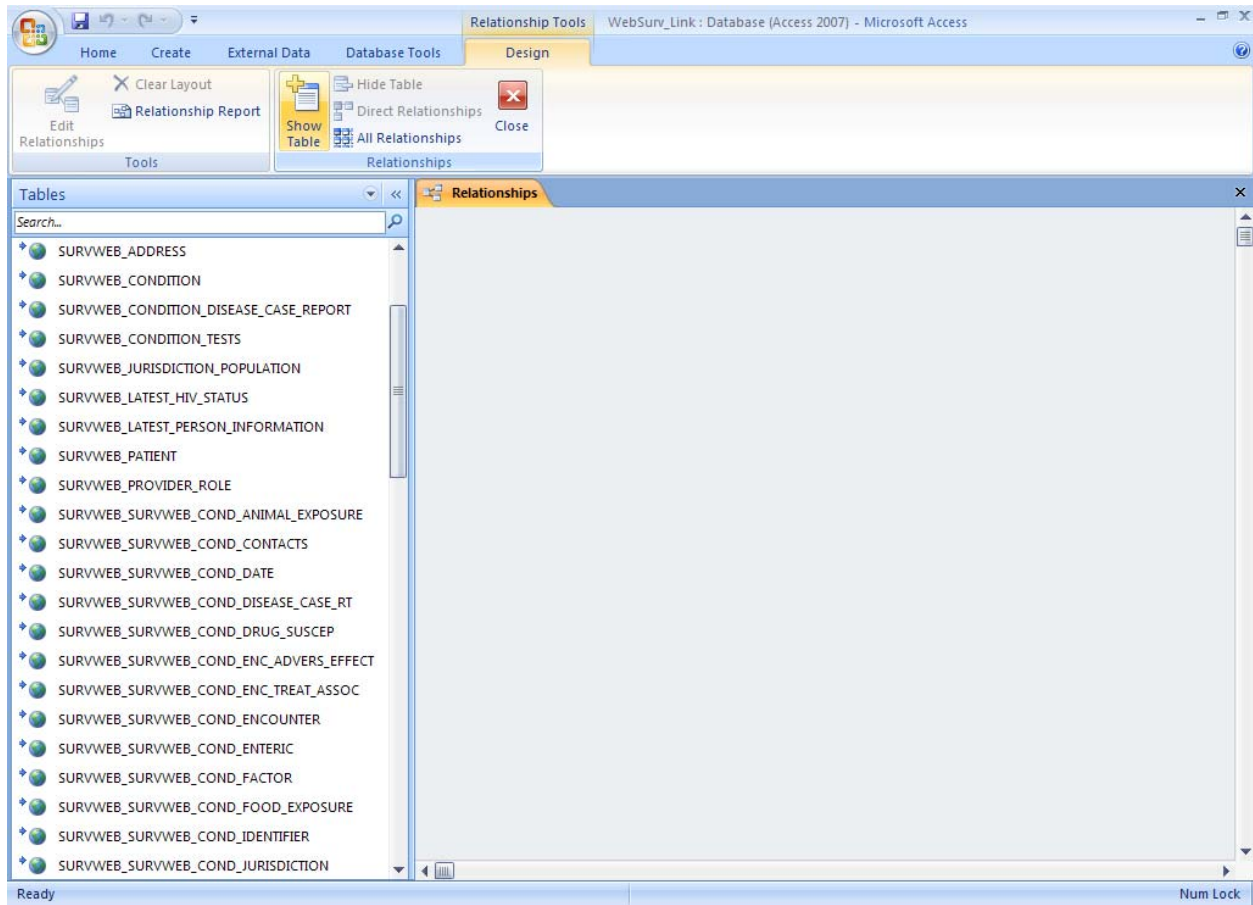
How to establish relationships for all tables.

A detailed listing of the WebSurv tables, columns and relationships is available at http://dhssnet/ehcdp/WebDevel/webMOHSIS_DW_Index.htm.



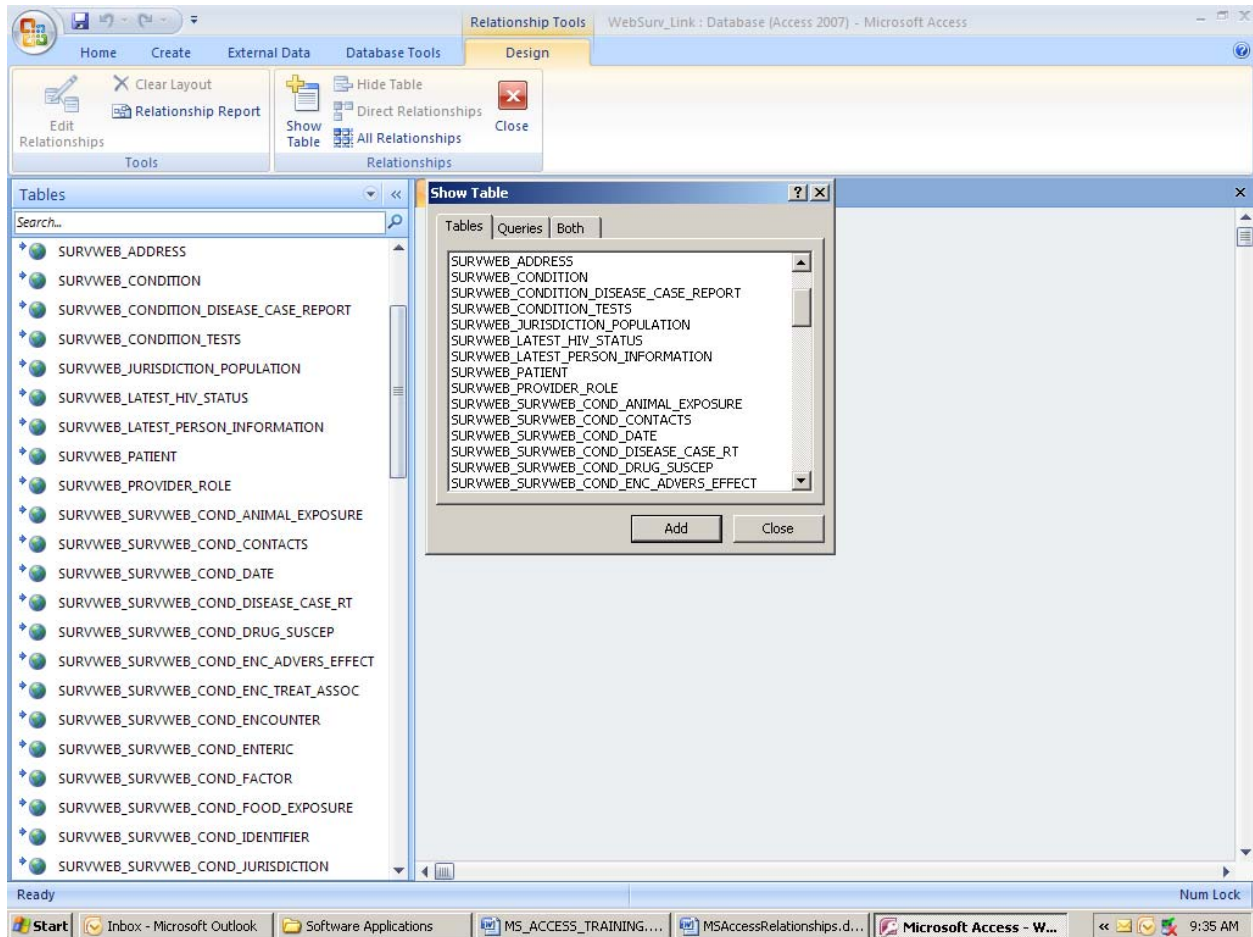
From the Database Tools menu bar, click on Relationships.

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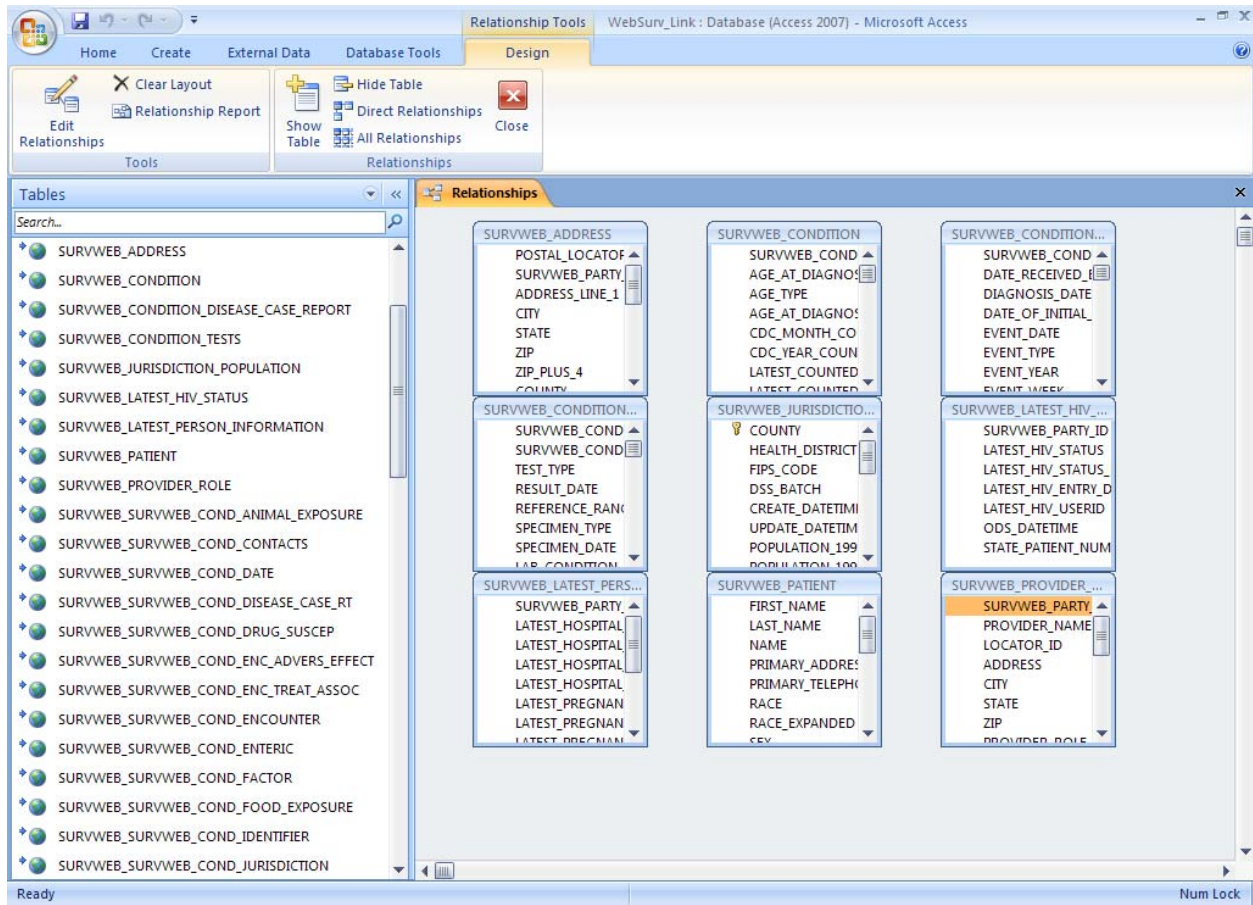
Click on Show Table.

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In the Show Table dialog box, select the tables to add to the relationships window, and click add. Close the Show Tables dialog box.

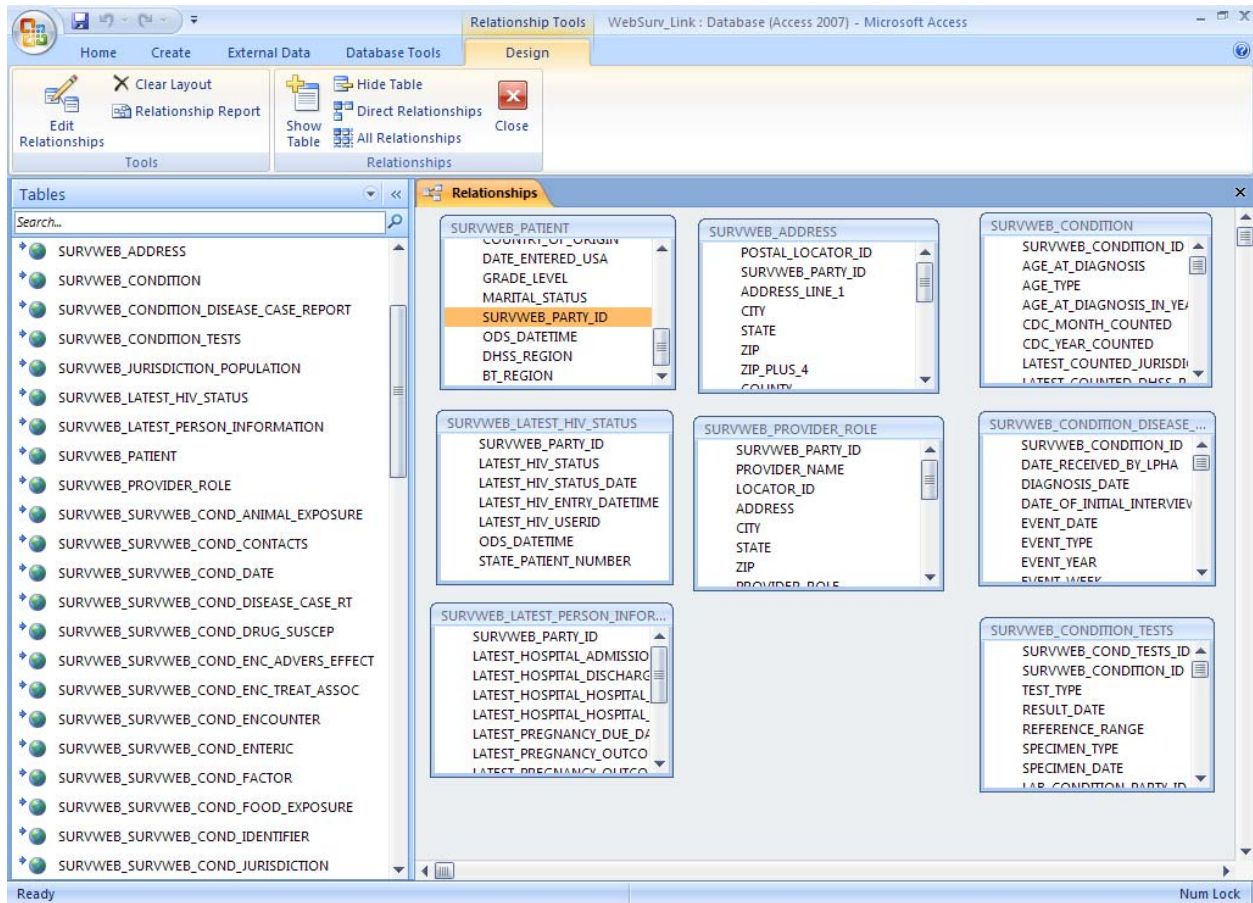
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The tables are shown in the relationships window.

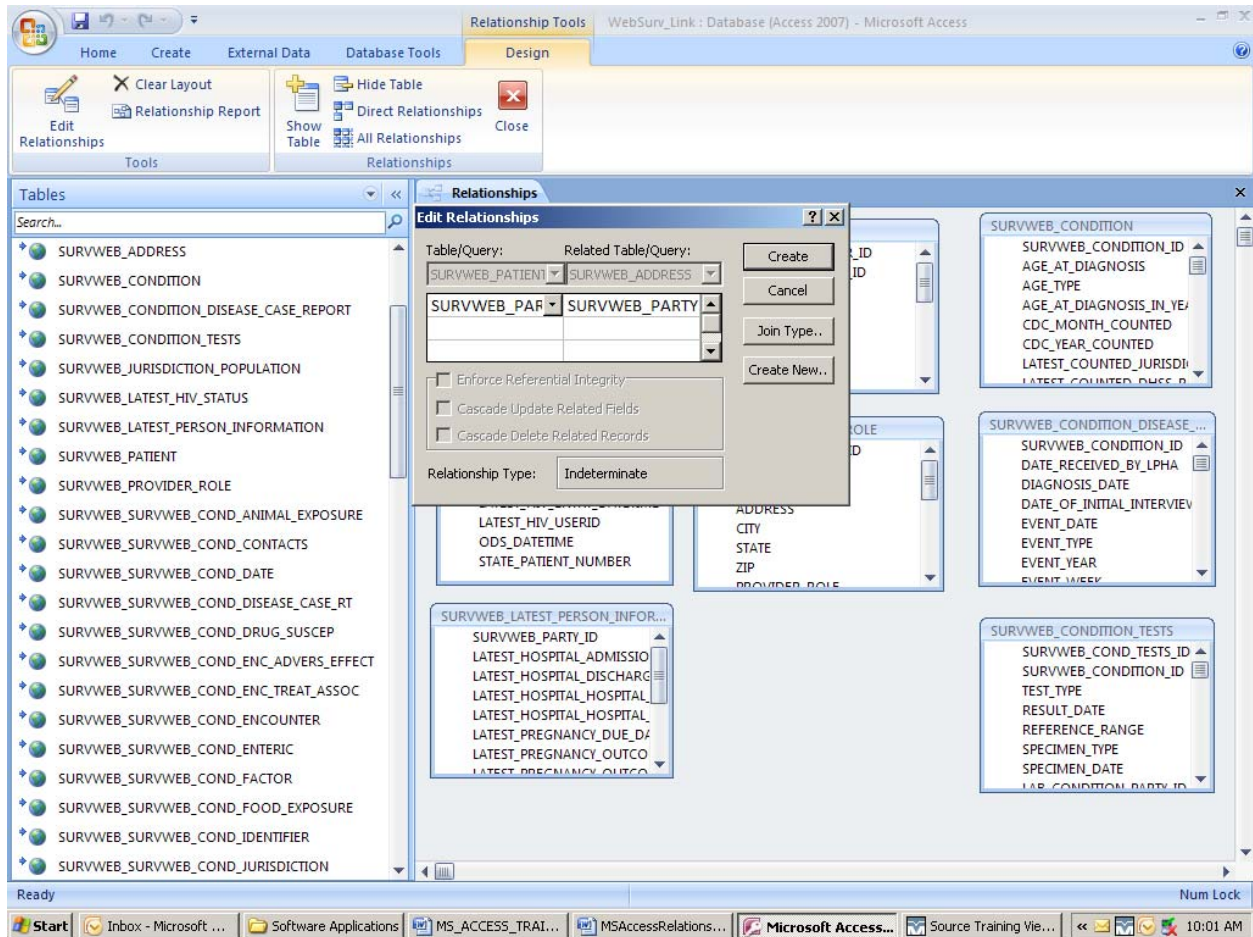
HINT: Organize the tables into groups putting CONDITION tables together and PARTY tables together.

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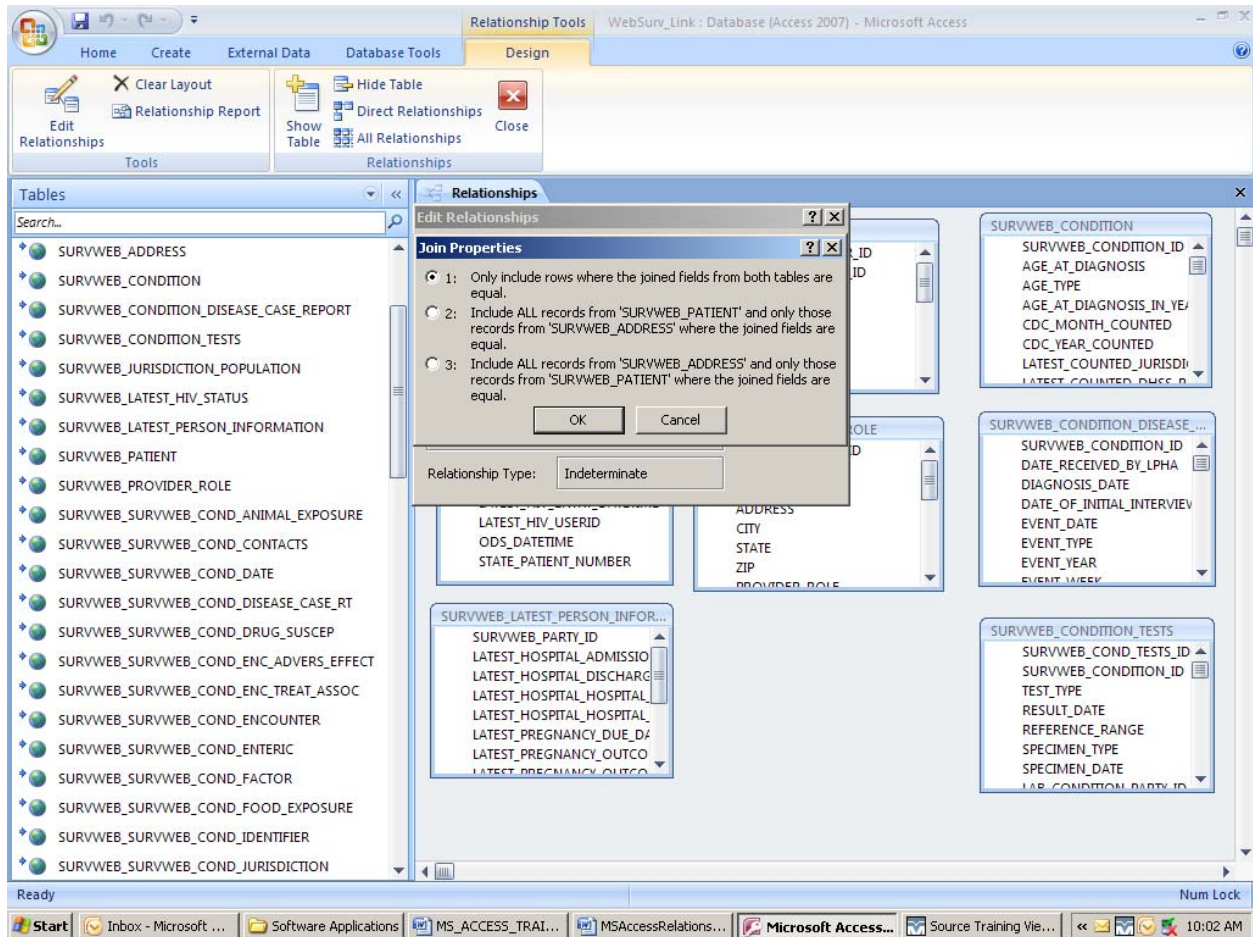
Select the variable (SURVWEB_PARTY_ID) in the first table and drag it to the variable (SURVWEB_PARTY_ID) in the second table.

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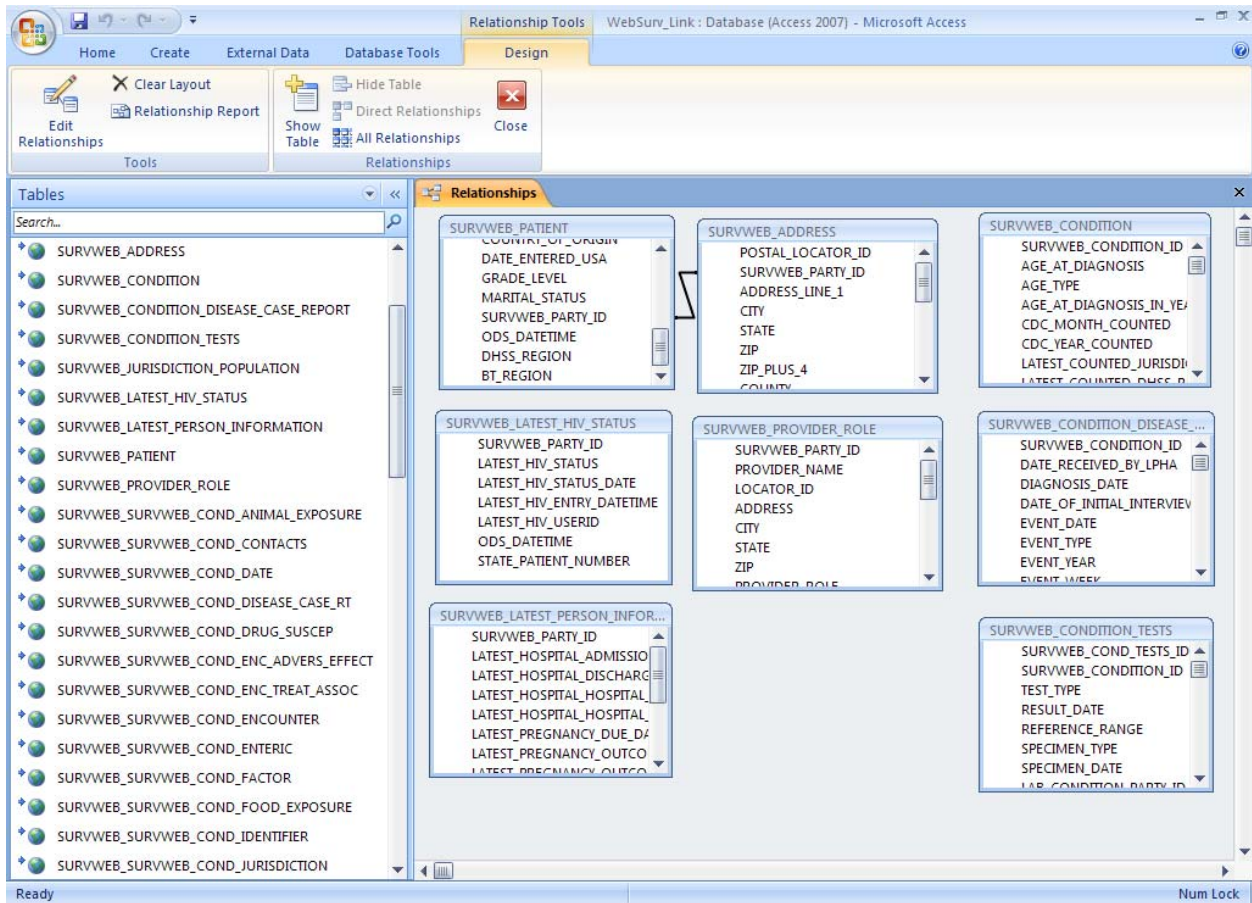
The Edit Relationships dialog box appears. Click on Join Type.

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For One to One Relationship tables, No 1 should be selected. For One to Many Relationships, 2 or 3 should be selected. All records should come from the “ONE” table and only those from the “MANY” table. Click OK and then click Create on the Edit Relationships dialog.

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The relationship is established (but not saved yet). Continue establishing relationships between tables (as defined in the documents at http://dhssnet/ehcdp/WebDevel/webMOHSIS_DW_Index.htm).

Save and close the relationships window.

NOTE: Relationships can be established at the query level as well but do not carry over to other queries.